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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/624,747

07/21/2003

Jen-Feng Lee

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EXAMINER

ALEMU, EPHREM

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/624,747	LEE, JEN-FENG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ephrem Alemu	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. New corrected drawings are required in this application since the drawings filed 7-21-03 are objected to because lines, number & letters are not uniformly thick and well defined, clean, durable, and black (poor line quality) in all figures. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Claim Objections***

2. Claims 2 and 3 is objected to because of the following informalities:

In claim 2, line "SoC" should be replaced with --system on chip (SoC)-- to clearly identify, at least once in the body of the claims, that "SoC" stands for the abbreviated words "system on chip".

In claim 3, line 2, "a GPS" should be replaced with --said GPS--, for correcting antecedent basis since claim 3 depends on claim 2. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims are rejected under 35 U.S.C. 102(b) as being anticipated by Bondyopadhyay (US 5,886,667).

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Re claim 1, Bondyopadhayay discloses a helmet (12) with built-in antenna (10) (Figs. 1, 3, 8), comprising:

One or a plurality of integrated-circuit antennas (14) built into the layer of material on top portion of the helmet (12) Figs. 1-9; Col. 3, line 28-Col. 8, line 9), and

Metal strands (i.e., feed network 20) connecting the antennas through the layer of the helmet so that signals received from the antennas can be transmitted to a separate electronic means by wires (i.e. i.e., wire (coaxial connector) connected t from GPS system to the feed network (20) via node 30) (Figs. 1-9; Col. 1, lines 8-13; Col. 2, lines 3-44; Col. 6, lines 11-37; Col. 7, lines 31-44).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bondyopadhayay (US 5,886,667) in view of Applicant's admitted prior art (AAPA) (page 2, lines 6-8).

Re claim 2, although Bondyopadhayay does not teach how the GPS system being manufactured, AAPA discloses that modern days GPS systems are manufactured in the SoC (system on chip) style.

It would have been well in the skill of an artisan at the time the invention was made to use GPS system manufactured on SoC for the purpose of reducing the size and weight of GPS system used by Bondyopadhayay.

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7. Claims 3, 4, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bondyopadhayay (US 5,886,667) in view of Applicant admitted prior art (AAPA) (page 2, lines 6-8) further in view of Lal (US 6,732,381).

Re claim 3, Bondyopadhayay does not disclose helmet contains a depressed area defining a slot for receiving the GPS to fit the slot.

Lal discloses a communication assembly (16) including GPS tracker (34) coupled within a slot (14) of the body member of a helmet (10) for the purpose of providing a hand free communication for a user wearing the helmet.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the helmet of Bondyopadhayay modified by AAPA by providing a slot on the body member of the helmet as taught by Lal for the purpose of providing a hand free communication for a user wearing the helmet.

Re claim 7, Lal further shows a cell phone (20) included within the communication assembly (16) ear-piece so positioned as to be close to wearer's ear, and a mouth-piece rotatably mounted to enable rotating up and down for ease of use (Figs. 1-6; abstract; Col. 3, line 56- Col. 5, line 6). Therefore, given Bondyopadhayay modified by AAPA further modified by Lal, providing a GPS system and/or cell phone manufactured on SoC would have been obvious for the purpose of providing a hand free communication for a user wearing the helmet.

8. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bondyopadhayay (US 5,886,667) in view of Applicant admitted prior art (AAPA) (page 2, lines 6-8) further in view of Lal (US 6,732,381) and further in view of Schoolman (US 5,019,828).

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Re claims 5 and 6, Bondyopadhayay or Lal does not disclose LCD panel so shaped to conform to the inside curvature of the helmet, and rotatably (slidably) mounted to the inside surface of the helmet to display positioning information sent from the positioning means, so that the LCD could be rotated (slid) down for use and rotated (slid) up to avoid blocking user's view when not in use.

Schoolman discloses and teaches of using a display device mounted in the flip-up/down visor of a helmet (15) for the purpose of providing a user wearing the helmet to view his /her position relative to surrounding terrain or city environment (Fig. 3; Col. 1, lines 24- Col. 5, line 14).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the helmet of Bondyopadhayay modified by AAPA and further modified by Lal by providing a display device to be mounted in the flip-up/down visor of a helmet as taught by Schoolman for the purpose of providing a user wearing the helmet to his /her position relative to surrounding terrain or city environment.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lazzeroni et al. (US 2002/0176595); Gray (US 5,678,205); and McKinney (US 4,077,007); also teach similar inventive subject matter.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (571) 272-1818. The examiner can normally be reached on M-F Flex hours.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be "W. K. Wong", written in a cursive style.

EA

12-09-04